REMARKS

Reconsideration of the present application is requested. This application includes 18 claims. Applicants appreciate the Examiner's withdrawal of the restriction requirement and the decision to join all claims for the present action on the merits. Applicants also appreciate the indication of allowable subject matter in dependent claims 11 and 12. In view of the following arguments, it is believed that the parent and intervening claims to claims 11 and 12 are themselves allowable. Consequently, Applicants have opted to retain these claims in their dependent form, but will amend them to make them independent if the present rejections are sustained.

Claim 2 along with its dependent claims were rejected under 35 U.S.C. §112 for the recitation of "a number of elongated beams" in claim 2 and "a second plurality of elongated forks" in claim 4. With respect to claim 2, the recitation of the elongate beams has been amended to indicate that the beams extend between the first and second conveyor sections. Similar changes have been made to claims 2 and 14. With respect to claim 4, this claim has been amended to remove the reference to "first" and "second" pluralities. Comparable changes have been made to claims 6 and 7. It is believed that the indefiniteness issues raised with respect to claims 2-7, 16 and 17 have been addressed by these amendments.

Finally, all of the claims, with the exception of claims 11 and 12, were rejected as anticipated by the patent of Schmitt (U.S. No. 4,195,959). Schmitt was cited as disclosing a pusher mechanism 62 and an extension fork assembly 26. It is respectfully suggested that Schmitt does not disclose all of the elements of Applicants' claims 1-10 and 13-18, so it cannot serve as an anticipatory reference.

For instance, claim 13 requires that the elongated forks include a tapered free end. However, the Schmitt transfer carriage 26 includes transfer members 48 which are "attached at their opposite ends to upstream and downstream transfer beams 49a and 49b". See, col. 3, lines 23-25. Thus, as depicted in Fig.

1 of Schmitt, the transfer members 48 do not have a free end. (See also, Fig. 8). Since the Schmitt members 48 do not have a free end, they certainly cannot have a tapered free end, as required by claim 13.

Moreover, there is no suggestion in Schmitt for disassembling its transfer carriage 26 so that the transfer members 48 can have a free end adjacent the second conveyor. The beams 49a, 49b that support the ends of the members 48 are themselves attached to shifting plates 50 (col. 3, l. 30-31, and Fig. 1). Eliminating the end beam 49b would disturb the structure that allows connection of the transfer members 48 ultimately to the shifting mechanism through plates 50. Thus, modifying Schmitt to provide free ends to the transfer members would frustrate the operability of the Schmitt device. Consequently, claim 13 is neither anticipated nor rendered obvious by the Schmitt patent.

Claims 3, 4, 16 and 17 of the present application define the upper surface of the number of elongated beams, in which the upper surface of these beams defines the stationary transfer surface. In contrast, the transfer surface in Schmitt is defined by ball rollers 34, as shown in Fig. 3 and described at col. 2, lines 52-56. Thus, Schmitt does not disclose a stationary transfer surface defined by the upper surface of elongated beams (claims 3 and 4) and does not disclose a curved upper surface to elongated beams (claims 16 and 17), so the Schmitt reference fails to anticipate these claims.

Moreover, there is no suggestion in Schmitt to remove the ball rollers 34 so that the tubes 30 would then constitute the transfer surface. The ball rollers of Schmitt are directly aligned with the path of the first conveyor section (see, Figs. 2 and 9). Thus, a sheet stack (132) is fed onto the ball rollers from a direction perpendicular to the tubes 30. The pusher mechanism 62 then pushes the stack in a direction parallel to the tubes 30 toward the vertical stacking platform. The Schmitt ball rollers must exhibit a curvature in two directions to facilitate movement of the sheet stack over the rollers in two perpendicular directions. Thus, Schmitt cannot contemplate removing the ball rollers without frustrating the

function and operation of the illustrated article stacking apparatus. The Schmitt patent neither anticipates nor renders obvious Applicants' claims 3, 4, 16 and 17.

Claims 8-10 and 18 call for means for supporting the free end of each of the elongated forks. As explained above in connection with claim 13, the transfer members 48 of Schmitt do not have any free end. The members 48 are attached at their opposite ends to beams 49a, 49b. Since the Schmitt transfer members 48 do not include a free end, they cannot include means for supporting a free end, as required by claim 8. Instead, the Schmitt device includes rollers mounted to the shifting plates 50, which form the frame of the transfer carriage. These rollers 54 are depicted in Fig. 3 of Schmitt. It is clear that the rollers 54 of Schmitt do not support the end of the transfer members 48 or even contact these members. It can also be pointed out that Schmitt fails to disclose the vertical and horizontal roller arrangement defined in Applicants' claim 10.

Thus, Schmitt cannot anticipate claims 8-10 and 18 because it fails to disclose every claimed element. Again, there is no suggestion or motivation in Schmitt to provide the transfer members 48 with free ends, so the Schmitt reference is inappropriate to anticipate or render obvious Applicants' invention defined in these claims.

Turning now to independent claims 1, 14 and 15, the Schmitt reference was also applied as anticipatory. Claim 1 defines the apparatus as including a pusher mechanism and an extension fork assembly. The pusher mechanism is defined as pushing the article from the first conveyor to the second conveyor. Moreover, the extension fork assembly includes a number of forks for supporting the article as it is pushed across the forks by the pusher mechanism. The Schmitt patent neither discloses nor contemplates structure as defined in claim 1. While the Schmitt patent describes "pusher arms" 62 (see, col. 3, lines 45-56), it is clear that these arms do not push the article between the first and second conveyor sections and do not push the article across the forks. The arms 62 in Schmitt simply pivot up or down between retracted and extended positions. The

arms 62 are supported by and move with the transfer carriage, and more particularly to the transfer members 48, as described at col. 3, lines 48-55.

The arms 62 simply pivot up or down, and do not translate in a manner capable of pushing anything. Instead, the stack of sheets is conveyed by movement of the entire transfer carriage 26, as best depicted in Figs. 9-12. As can be seen in the figures, the arms 62 always maintain their position on the moving transfer carriage and do not push the stack 132. The stack 132 is dislodged from the transfer carriage by rake means 94 and its rake fingers 96, as described at col. 4, lines 45-61. The sequence of steps depicted in Figs. 9-12 is described at col. 5, line 62-col. 6, line 28. As this excerpt explains, the pusher arms hold the stack 132 on the transfer carriage 26, and the carriage translates toward the stacking platform. As the transfer carriage approaches the stacking platform it triggers movement of a fence plate 104 that retains the stack in a desired downstream position. The finger rake 94 is then pivoted downward to engage the stack of sheets 132 as the carriage moves back to its retracted position. At this point, the "pusher" arms 62 are retracted because they have no role in displacing the stack of sheets from the transfer carriage to the vertical stacking platform.

Thus, it should be clear from the Schmitt disclosure and figures that Schmitt does not include a pusher mechanism that both pushes the article from the first conveyor to the second conveyor, and pushes the article across the transfer forks, all as required by Applicants' claim 1. Moreover, there is no suggestion in Schmitt to modify the apparatus in the manner defined in claim 1. Any such modification would render the finger rake 94 unnecessary since the separate pusher would be all that would be necessary to move the articles from the transfer mechanism to the stacking platform. Furthermore, modifying Schmitt to meet the limitations of Applicants' claim 1 would require disconnecting the "pusher" arms 62 from the transfer members 48, which would of course require a wholesale reconstruction of the Schmitt apparatus.

Consequently, the Schmitt patent cannot anticipate claim 1 because it does not disclose every element set forth in that claim. Moreover, for the reasons explained above, there is no suggestion or motivation to modify Schmitt in any manner to render Applicants' claim 1 obvious. Thus, claim 1 and its dependent claims are believed to be allowable over Schmitt and the other art of record.

Claim 14 defines a system including the first and second conveyor sections with a transfer apparatus substantially as defined in claim 1. The explanations and arguments set forth above with respect to claim 1 apply with equal force to claim 14. Thus, it is believed that claim 14 is allowable over Schmitt and the other art of record.

Finally, independent claim 15 is a method claim that echoes the limitations of claim 1. This claim includes the steps of sliding the article along a stationary transfer surface. However, as explained above, the Schmitt apparatus carries the stack of sheets on the moving transfer carriage. The transfer carriage supports the stacks above the stationary surface of the apparatus, so there is no step of sliding the article along the stationary transfer surface, as required by claim 15.

Claim 15 further defines the step of sliding the article along the elongated forks until the article is situated above the pallet at the second conveyor section. Again, as explained above, the entire stack is conveyed by the transfer carriage of Schmitt directly over the vertical stacking platform. The stack is held in this position by the rake 94 as the transfer carriage is retracted. The Schmitt apparatus does not slide the article along the extended transfer members 48 until the stack is situated above the stacking platform – the stack is already there when the transfer members are retracted.

Consequently, Schmitt cannot anticipate Applicants' invention of claim 15 because it lacks at least these two method steps. Moreover, as explained above, there is nothing in Schmitt that suggests modifying the sequence of operation of the apparatus to meet the limitations of claim 15. Thus, claim 15 is both novel

and non-obvious over Schmitt and the other art of record.

In view of the foregoing arguments and amendments it is believed that the present application, including claims 1-18, is in condition for allowance. The Examiner is invited to contact the undersigned agent if it is believed that a telephonic interview would be beneficial to iron out any outstanding issues. Action toward issuance of a Notice of Allowance in this case is earnestly solicited.

Respectfully submitted,

April 23, 2003

Michael D. Beck
Reg. No. 32, 722
Maginot, Moore & Bowman
Bank One Center/Tower
111 Monument Circle, Suite 3000
Indianapolis, Indiana 46204-5115
Phone: (317) 638-2922
Facsimile: (317) 638-2139

COPY OF THE CLAIMS IN THEIR AMENDED FORM

Please amend claims 1, 2, 4, 6, 7 and 14 as follows:

1. (once amended) An apparatus for loading an article from a first conveyor section onto a pallet situated on a second conveyor section, comprising:

a pusher mechanism for pushing the article from the first conveyor section toward the pallet on the second conveyor section; and

an extension fork assembly including;

a stationary transfer surface between [said pusher mechanism] the first conveyor section and the second conveyor section configured to support the article as it is pushed by said pusher mechanism thereacross;

a number of elongated forks configured to support the article as it is pushed by said pusher mechanism thereacross; and

a drive mechanism connected to said number of forks and operable to move said number of forks between a retracted position adjacent said stationary transfer surface and an extended position adjacent the pallet on the second conveyor section.

2. (once amended) The apparatus according to claim 1, wherein said stationary transfer surface includes a number of elongated beams extending between [said pusher mechanism] the first conveyor section and the second conveyor section.

4. (once amended) The apparatus according to claim 2, wherein said extension fork assembly includes a [first] plurality of elongated beams and a [second] plurality of elongated forks interleaved with said [first] plurality of elongated beams.

6. (twice amended) The apparatus according to claim 4, wherein each of said [second] plurality of elongated forks includes an upper surface configured to

support the article as it is pushed by said pusher mechanism thereacross.

7. (Twice amended) The apparatus according to claim 6, wherein said upper surface of each of said [second] plurality of elongated forks is situated at or below said stationary transfer surface.

14. (once amended) A system for loading an article onto a pallet, comprising:

a first conveyor section initially transporting the article;

a second conveyor section carrying the pallet; and

a transfer apparatus disposed between said first conveyor section and said second conveyor section, said transfer apparatus including;

a pusher mechanism for pushing the article from said first conveyor section toward the pallet on said second conveyor section; and

an extension fork assembly including;

a stationary transfer surface between said [pusher mechanism] <u>first conveyor section</u> and said second conveyor section configured to support the article as it is pushed by said pusher mechanism thereacross;

a number of elongated forks configured to support the article as it is pushed by said pusher mechanism thereacross; and

a drive mechanism connected to said number of forks and operable to move said number of forks between a retracted position adjacent said stationary transfer surface and an extended position over said second conveyor section adjacent the pallet carried thereon.